An Exploration of Somatization among Asian Refugees and Immigrants in Primary Care

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Abstract: The clinical records of Chinese, Filipino, Vietnamese, Laotian, and Mien patients in primary care were reviewed to determine the prevalence of somatization, its associated patient characteristics, and the manifested illness behavior. Patients in this study were generally poor, unemployed, and spoke little English. Somatization accounted for 35 per cent of illness visits. These visits were also more costly. Refugees had a higher rate of somatization (42.7 per cent) than immigrants (27.1 per cent). Although socio-demographic characteristics did not strongly differentiate patients with somatization from others, ethnicity and indicators of decreased resources such as large households with low income, households headed by single women, or a limited English proficiency were associated with somatization in certain ethnic groups. Somatization is thus an important health problem among Asian refugees and immigrants. (*Am J Public Health* 1985; 75:1080–1084.)

Introduction

Somatization is characterized by the expression of personal and social distress in an idiom of bodily complaints and medical help-seeking.[1–9] Patients with somatization may have no detectable organic pathology or may amplify existing physiologic changes. It has been estimated that 30 to 80 per cent of patient visits to primary care clinics have psychosomatic origins.[10–16] Patients with somatization are high users of health care services and represent a major burden for the health care system; they account for 50 per cent of ambulatory care costs in the United States.[3, 17]

From a clinical perspective, somatization poses a special challenge to physicians because of the uncertainty in its diagnosis. Even after time-consuming and elaborate investigations, physicians are reluctant to diagnose somatization for fear of "missing something organic" or mislabeling the patient as a "hypochondriac". Because of some physicians' emphasis on the biomedical model, psychosocial problems are often overlooked; anxiety and depression, common psychiatric disorders associated with somatization, are frequently underdiagnosed.[18–21] Since, when patients with depression are treated effectively, both their somatic complaints and their subsequent utilization of health care services diminish,[13,22,23] an integrated biopsychosocial approach is indicated.

The occurrence of somatization varies across sociocultural groups and seems to be influenced by environmental stressors.[24,25] Barsky, summarizing a large literature, observed that somatization is more common among those who are less educated, of lower socioeconomic status, of rural background, and among ethnic groups that discourage the direct expression of emotional distress.[4]

Culture shapes the perception and expression of distress.[26–28] Variations in the expression of physical symptoms have been observed in many cultures.[29–34] Kleinman,[35] among others, found that Chinese patients expressed depression and other psychological problems predominantly through a somatic idiom. This propensity to use a somatic idiom (e.g., "I have a headache", instead of "I am sad") to cope with distress can be understood in view of the severe stigma attached to mental illness in Chinese and many Asian cultures.[36] In these traditional societies, somatization of psychological problems may be an adaptive coping mechanism as it mobilizes social support from the family and the community and provides relief from routine responsibilities.

Other investigations have confirmed the common clinical observation that people in transition, whether cultural or geographical, are at greater risk for somatization.[37–40] Asian refugees and immigrants may be especially predisposed to somatization.[25,41–43] They have experienced the catastrophic consequences of war and were forced to uproot and migrate to a culture very unfamiliar to them. Many have had little formal education and have meager socioeconomic resources; their acculturation may have involved high stress mediated by low support. Their traditional cultures discourage the direct expression of emotional distress.

The purposes of this study were to: estimate the prevalence of somatization in this high risk population, describe the health care utilization pattern of Asian refugees and immigrants, explore the social and demographic characteristics of somatizers, and examine ethnic variations in symptom expression.

Methods

Setting and Subjects

This study was conducted at the International District Community Health Center (IDCHC), a full-service, multilingual ambulatory care clinic serving the Asian and Pacific Islander populations in Seattle, Washington. At the time of the study, approximately 3,000 patients were cared for at the IDCHC, and they made about 15,000 visits per year. The clinic population represented 12 ethnicities, with four groups (Chinese, Filipinos, Vietnamese, and Laotian) making 85 per cent of the clinic visits. The majority of patients were poor and spoke very limited English.

All Vietnamese, Chinese, Laotian, and Filipino patients 15 years of age or older making an illness visit to the IDCHC in March and April 1983, were eligible for inclusion in the study. A distinction was made between Chinese refugees and immigrants. Approximately one-half of the Chinese patients had been born and raised in Vietnam and consequently had lived through the traumatic experiences of forced migration as refugees. In contrast, a second group of Chinese patients had lived in Taiwan, Hong Kong, or China and chose to

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emigrate to the United States. Among Laotians, a distinction was made between Mien and lowland Laotians.

Procedures and Definitions

Study data were abstracted from the medical records, and encounter forms were completed at each visit by the attending clinician. Sixty per cent of the study encounter forms were selected randomly and reviewed to ensure proper case selection. Additionally, the patient characteristics for 20 per cent of visits were coded twice in order to assess coding reliability prior to computer entry.

Diagnoses recorded on the encounter forms were coded according to the International Classification of Diseases (9th revision).[44] Illnesses were categorized as physical disorders (e.g., diabetes and hypertension), mental disorders (e.g., anxiety and depression), and vague symptoms and signs (absence of a detectable pathology—dizziness, abdominal pain). The patients' chief complaints as recorded by the clinicians were coded according to the "Reason for Visit Classification"[45] and categorized as physical or psychological. Patients who presented with physical complaints and who had detectable physical pathology were assigned to the physical disorder category; those with psychological complains and who had psychiatric diagnoses were assigned to the mental disorder category; the remaining patients were categorized as having somatization.

Somatization was operationally defined by focusing on the physical complaints made by patients in whom there was either a psychiatric disorder or an absence of a clear-cut physical etiology. Throughout the study we will refer to this operational definition of somatization as "vague somatic symptoms" (VSS), e.g., abdominal pain, chest pain, dizziness, flatulence, headache, fatigue, shortness of breath, low back pain, appetite problems, sleep problems, and other vague somatic symptoms in the absence of clear-cut etiology. A patient with somatization may have had excessive symptomatic complaints magnifying an existing disorder, no detectable pathology, or an underlying mental disorder. It was neither appropriate nor feasible to conduct the most exhaustive diagnostic procedures for each presenting symptom, thus, we relied on the physician's clinical impression based on the accepted standard of care at the primary care clinic. All physicians attended training sessions where many examples were given and worked through to help achieve uniformity in the diagnostic categories.

Because some patients who presented with vague somatic symptoms also had a mental disorder, a distinction was made between those who had no detectable pathology and those with underlying mental disorders. A few patients who had physical disorders also presented with an apparently unrelated VSS, such as a patient who had hypertension and a complaint of decreased appetite with no discernible pathology for the latter. These patients are characteristic of somatizers in ambulatory care who often have accompanying chronic disorders.

Socio-demographic characteristics of patients were abstracted from the medical records. Measures of health care utilization consisted of the frequency of visits during the study period and the cost of each visit. Cost of each visit was based on the Medicaid fee schedule and computed according to the duration of each visit as well as diagnostic tests and treatments performed (see footnote to Table 1).

Analysis

Data analysis included descriptive summaries of study variables (percentages, means, standard deviations) and statistical comparisons between groups, were made using bivariate and multivariate analyses.[46] The patient's first visit during the study period was selected for the patient-based analysis. Data on all subsequent visits were collected to examine health services utilization.

TABLE 1—Cost of Visit

	Somatization	Physical Disorder	Mental Disorder
Total charge per visit* (mean)	$28.7	$22.9	$22.5
(standard deviation)	(18.2)	(11.2)	(7.5)

*The total charge for each visit was abstracted from the encounter form. It was computed by the billing clerk based on the duration of visit and the cost for the laboratory tests and procedures ordered. There were 5 potential levels of services: minimal (0–5 minutes) = $8, brief (5–15 minutes) = $14, limited (15–30 minutes) = $16.50, intermediate (30–45 minutes) = $20, extended (45–60 minutes) = $28. The laboratory and procedure charges were also based on the Medicaid fee schedule.

Results

Social and Demographic Characteristics, Health Care Utilization

During the two-month study period, 901 clinic visits were made by 526 patients, an average of 1.7 clinic visits per patient. Because illness visits tend to be episodic, one would not expect this high rate of utilization to be mantained throughout the year. The average number of patient visits for the entire clinic is 5.3 visits per patient per year.

While patients with somatization (VSS) made slightly more visits (1.69) than patients with physical disorders (1.66) in the two-month period, patients with mental disorders had the highest utilization rate (2.5). The average cost of a visit (Table 1) was higher for patients with somatization ($28.7) than for patients with physical disorders ($22.9), or mental disorders ($22.5).

Frequency of clinic visits and patient characteristics is summarized for each ethnic group in Table 2. Patient characteristics associated with a higher clinic utilization rate included refugee status and age; Mien and lowland Laotians had a higher frequency of visits than the other refugee ethnic groups.

The patient characteristics of the immigrant populations (Chinese and Filipinos) were very different from the refugee populations (Chinese, Vietnamese, lowland Laotians, and Mien). Except for Filipinos, most patients were limited in English and required translators. Immigrants had resided in the United States for a longer period of time than the refugees. While the refugees were more frequently on public assistance, all groups had high levels of unemployment and low monthly household incomes. The sociodemographic characteristics of patients in the study were similar to those for the overall clinic.

Symptom Expression

Patients' reasons for visit to the clinic were overwhelmingly due to physical complaints or for the follow-up of physical disorders. Only 2.7 per cent of the reasons for visit were due to affective complaints or for the follow-up of mental disorders. Ill-defined somatic symptoms such as headache (7.5 per cent) abdominal pain (6.6 per cent), low back pain (5.8 per cent), dizziness (2.6 per cent), and insomnia (2.6 per cent) constituted 25 per cent of all reasons for visit.

Refugee patients were more likely than immigrant patients to have somatic complaints, but once refugee status

TABLE 2—Sample Characteristics

Variables	Immigrants		Refugees				
	Chinese	Filipino	Chinese	Vietnamese	Lowland Laotian	Mien	Overall
Number of Patients (%)	77 (16)	187 (32)	61 (12)	140 (28)	45 (9)	16 (3)	526 (100)
Mean Number of Visits/2 mos	1.48	1.66	1.58	1.69	2.08	2.76	1.7
[standard deviation]	[0.81]	[0.87]	[1.1]	[0.89]	[1.3]	[1.4]	[1.0]
Age (mean years)	64.2	63.2	41.3	39.1	40.1	48.0	55.4
[standard deviation]	[20.1]	[16.3]	[14.9]	[15.9]	[14.6]	[13.5]	[24.1]
Sex							
Women (%)	61	69	69	57	61	52	56.2
Men (%)	39	31	31	43	39	47	43.8
Marital Status							
Married (%)	57	50	54	60	81	60	57
Never Married (%)	19	26	28	29	10	0	25
Divorced (%)	21	19	18	7	2	40	15
Widowed (%)	3	5	1	4	7	0	3
Household Size (number of persons)	2.3	2.0	3.2	3.5	4.8	3.5	3.1
[standard deviation]	[1.3]	[1.5]	[2.8]	[2.3]	[2.4]	[2.1]	[2.3]
Immigration Status	Immigrant	Immigrant	Refugee	Refugee	Refugee	Refugee	49% refugee
Years of Residence in US (X)	16	20	3	3	4	3	11.2
[standard deviation]	[22]	[25]	[1.3]	[2.2]	[11.1]	[0.06]	[18.0]
Per Cent Who Need Translators	75	16	84	82	92	88	70
Per Cent Unemployed	81	85	76	89	90	88	85
Per Cent Enrolled in School	2.5	1	5	10	6	0	4.4
Per Cent on Public Assistance	7.6	10	31	64	60	77	44
Household Income per month	538	546	530	553	598	515	555
[standard deviation]	[411]	[366]	[328]	[335]	[452]	[146]	[352]

TABLE 3—Diagnostic Profiles of the Various Ethnic Groups

Diagnostic Categories of Patients	Immigrants			Refugees					Overall
	Chinese	Filipino	Subtotal	Chinese	Vietnamese	Laotian	Mien	Subtotal	
Per Cent Somatization: (Number)	(29) 37.7	(43) 23.0	(72) 27.1	(21) 34.4	(54) 38.6	(23) 51.1	(12) 75.0	(109) 42.4	(182) 34.6
Somatic Symptoms in the Absence of Organic Etiology (Number)	(23)	(40)	(63)	(17)	(48)	(21)	(8)	(94)	(157)
Mental Disorders (Number)	(6)	(3)	(9)	(4)	(6)	(2)	(4)	(16)	(25)
Per Cent Disorders (Number)	(46) 59.7	(138) 76.4	(190) 70.6	(37) 60.7	(80) 57.1	(22) 48.9	(4) 25.0	(140) 54.5	(327) 62.2
Per Cent Mental disorders with Psychological Complaints (Number)	(0) —	(0) —	(1) 0.3	(2) 3.3	(2) 1.4	(0) —	(0) —	(4) 1.6	(4) 0.8
Per Cent Missing (Number)	(2) 2.6	(6) 3.2	(5) 1.9	(1) 1.6	(4) 2.9	(0) —	(0) —	(4) 1.6	(13) 2.5
Total (Number)	(77) 100	(187) 100	(269) 100	(61) 100	(140) 100	(45) 100	(16) 100	(257) 100	(526) 100

was taken into account, there was no difference in the distribution of somatic complaints across ethnic groups.

Somatization

Physicians diagnosed somatization—"vague somatic symptoms" (VSS)—in 34.6 per cent of patients. The diagnostic profiles of refugees differed markedly from immigrants. Refugees were more likely to have the diagnosis of somatization and less likely to have the diagnoses of physical disorders (Table 3).

Aside from a higher proportion of refugees, the characteristics of patients with somatization were similar to those for the overall group. Both multivariate and bivariate analyses showed that there was no consistent set of sociodemographic characteristics associated with somatization across ethnic groups. In most of the ethnic groups, the relationship between somatization and the duration of residence in the United States and the patient's employment status could not be determined because of the lack of variance in these characteristics within an ethnic group.

Patients with somatization were more likely than patients with physical disorders to have the following sociodemographic characteristics: the presence of a female head of household (Chinese immigrants and Filipinos), large household size (Chinese refugees), and lack of enrollment in school (Laotians). Overall the variance accounted for in these

TABLE 4—Step-Wise Multiple Regression of Patient Characteristics of Somatization

Variable	Comparison of Patient Characteristics of Somatization versus Physical Disorders		Characteristics of Somatizing Patients with No Detectable Etiology versus Somatizing Patients with Mental Disorders	
	+/− Association with Somatic Sx	R^2 Change/Overall R^2, %	+/− Association with Somatic Sx	R^2 Change/Overall R^2, %
LEVEL 1				
Age	(−)	0.8	(+)	1.8
Sex	(o)	(o)	(o)	(O)
LEVEL 2				
Refugee	(+)	2.4		
Female Head of Household	(+)	1.2		
Enrolled in School	(−)	0.6		
Household Size			(+)	3.0
Spouse Employment			(+)	1.6
LEVEL 3				
Mien	(+)	1.6	(−)	1.6
Filipino	(−)	1.1		
Chinese Immigrant			(−)	1.6
Total R^2 Change		7.8		9.7

analyses ranged from 4.9 per cent to 13.4 per cent across ethnic groups. Among Filipino and Vietnamese patients with somatization, sociodemographic characteristics distinguished patients with mental disorders from other patients with somatization. For the Filipinos, a lack of proficiency in English and not being enrolled in school were associated with vague somatic symptoms in the absence of a detectable etiology. For the Vietnamese, older age, being single, a large household size, and a lack of proficiency in English were associated with vague somatic symptoms in the absence of a detectable etiology.

In view of the diversity of sociodemographic characteristics in these ethnic groups, a step-wise multiple regression analysis was also performed on the entire sample in order to determine the role of ethnicity. We found that ethnicity was independently associated with the occurrence of somatization. A Mien patient was more likely to have somatization than physical disorders while the converse was found for the Filipinos. A patient is more likely to have somatization than a physical disorder if he or she is younger, a refugee, comes from a female head of household, or is not enrolled in school. A patient is more likely to have vague somatic symptoms with no detectable pathology than mental disorders with somatization if he or she is older or from a larger household (Table 4). The variances explained by these sociodemographic characteristics are modest.

Discussion

Studies of somatization must depend on the clinical interpretation that a patient's physical complaint is an expression of psychosocial distress. The uncertainty surrounding this diagnosis and the biases of individual physicians are potential limitations. The operational definition of somatization adopted by this study (somatic symptoms for which a clinical investigation at a primary care clinic revealed no detectable organic etiology or somatic presentation for an underlying psychiatric disorder) may overestimate the occurrence of somatization by including a number of patients who may eventually have detectable pathology, or may underestimate the occurrence of somatization by excluding those patients who amplify existing organic lesions.

These difficulties aside, the estimated prevalence of somatization (34.6 per cent of illness visits were diagnosed to have somatization) in our study illustrates that somatization is one of the most important clinical problems in Asian refugees and immigrants. Moreover, the clinic visits of somatizers are more costly because they require additional laboratory investigation and physican time. Characteristics found to be related to somatization were indicators of further diminished resources, such as single-woman head-of-households, lack of proficiency in English, or a large household size with low income.

Refugee status, however, was an important factor which differentiated patients with somatization from patients with physical disorders. In addition, refugees were more likely than immigrants to seek health care services more frequently. Severe losses—personal, social, financial, and professional—were the norm of their experiences. Seeking care at a primary care clinic and expressing their distress through a physical idiom may also be the coping mechanism to deal with their plight. Recent refugees, moreover, may be more culturally traditional and thereby less likely to use psychological idioms to express their social and personal problems.

Ethnicity was a significant factor in differentiating patients with somatization from patients with other disorders. Although further ethnographic studies are needed to understand the underlying cultural differences among these groups, enough is already known to indicate that Southeast Asians are not culturally and socially homogenous.

In view of the overall low level of resources and the difficulties surrounding migration, somatization in these patients may also reflect a poor underlying psychological health status. An independent investigation[25] with a subgroup (N = 94) of this clinic's population indicated a high prevalence of depression among Vietnamese refugees (about 50 per cent). The overwhelming majority of patients (95 per cent) identified as depressed by the Vietnamese Depression Scale[47] presented with somatic complaints. Furthermore, only 43 per cent of these patients were recognized by the attending physician as depressed. Aside from the clinical significance of these findings, the high level of undiagnosed depression (a treatable disorder) is important from the perspective of health care costs because patients with unrecognized depression made more visits to the clinic than those who were not depressed.

Supportive social and health policies in conjunction with an integrated clinical approach are necessary in order to address the wide array of physical and psychological problems as well as the cultural communication barriers present in these refugees and immigrants. Socioeconomic resources of our subjects are still meager, and the health care needs of

this population are high even five years after their migration. Recent legislative decisions, which have either cut back or shortened the educational and social programs that were designed to assist these refugees and immigrants, have been devastating for many, since manifestations of decreased economic resources and the lack of enrollment in school were the characteristics identified by this study to be associated with somatization and increased health care costs.

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REFERENCES

1. Katon W, Kleinman A, Rosen G: Depression and somatization, a review. Am J Med 1982; 72:127–135, 241–247.
2. Katon W, Ries RK, Kleinman A: A prospective DSM III study of 100 consecutive somatizing patients.
3. Barsky AJ, Klerman GL: Hypochondriasis and somatic styles. Am J Psychiatry 1983; 140:273–283.
4. Barsky AJ: Patients who amplify bodily sensations. Ann Intern Med 1979; 91-63.
5. Ford CV: The Somatizing Disorders, Illness as a Way of Life. New York: Elsevier Biomedical, 1983.
6. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, 3d Ed. Washington, DC, APA, 1980.
7. Mechanic D: The experience and reporting of common physical complaints. J Health Soc Behav 1980; 21:146–155.
8. Pennebaker JW, Skelton JA: Psychological parameters of physical symptoms. Personality Soc Psychol Bull 1978; 4:524–530.
9. Tessler R, Mechanic D: Psychological distress and perceived health status. J Health Soc Behav 1978; 19:254–262.
10. Collyer J: Psychosomatic illness in a solo family practice. Psychosomatics 1979; 20:762.
11. Stoeckle JD, Zola IK, Davidson GE: The quantity and significance of psychological distress in medical patients. J Chronic Dis 1964; 17:959.
12. Lowry FH: Management of the persistent somatizer. Int J Psychiatry Med 1975; 6:227–239.
13. Cummings NA, Vanden Bos GR: The twenty years Kaiser-Permanente experience with psychotherapy and medical utilization. Health Policy Q 1981; 1:159–175.
14. Katon W, Ries RK, Kleinman AM: The prevalence of somatization in primary care. Compr Psychiatry 1984; 25:208–214.
15. Garfield SR, Colleen MG, Feldman R, Soghikian K, Richart RH, Duncan JH: Evaluation of an ambulatory medical care delivery system. N Engl J Med 1976; 294:426–431.
16. Hilkevitch A: Psychiatric disturbance in outpatients of a general medical outpatient clinic. Int J Neuropsychiatry 1965; 1:372–375.
17. Hoeper EW, Nycz GR, Regier DA, *et al:* Diagnosis of mental disorders in adults and increased use of health services in four outpatient settings. Am J Psychiatry 1980; 137:207–210.
18. Goldberg D: Detection and assessment of emotional disorders in a primary care setting. Int J Ment Health 1979; 8:30–48.
19. Regier D, Goldberg ID, Taube CH: The de facto US mental health service system. Arch Gen Psychiatry 1978; 35:685–693.
20. Climent C, *et al:* Mental health in primary health care. WHO Chronicle 1980; 34:231–236.
21. Hankin J, Oktay JS: Mental Disorder and Primary Care: An Analytic Review of the Literature. NIMH Series D, No. 7, DHEW Pub. No. ADM 78-661. Washington, DC: Govt Printing Office, 1979.
22. Widmer RB, Cadoret RJ: Depression in primary care: changes in pattern of patient visits and complaints during a developing depression. J Fam Pract 1978; 7:293–302.
23. Widmer RB, Cadoret RJ: Depression: the great imitator in family practice. J Fam Pract 1983; 17:485–505.
24. Kleinman A: Depression, somatiztion and the new cross-cultural psychiatry. Soc Sci Med 1977; 11:3–10.
25. Lin EHB, Ihle LJ, Tazuma LT: Depression among Vietnamese refugees in a primary care clinic. Am J Med 1985; 78:41–44.
26. Harwood A (ed): Ethnicity and Medical Care. Cambridge: Harvard University Press, 1981.
27. Marsella AJ: Cross-cultural studies of mental disorders. *In:* Marsella AJ, Tharp R, Ciborowski T (eds): Perspectives on Cross-Cultural Psychology. New York: Academic Press, 1979.
28. Kleinman AM: Patients and Healers in the Context of Culture: An Exploration of the Borderline between Anthropology, Medicine, and Psychiatry. Berkeley: University of California Press, 1980.
29. Zborowski M: Cultural components in response to pain. Am J Soc Issues 1952; 8:16–30.
30. Zola IK: Culture and symptoms—an analysis of patients' presenting complaints. Am Sociol Rev 1966; 31:615–630.
31. Good BJ, Delvecchio Good MJ: The meaning of symptoms: a cultural hermaneutic model for clinical practice. *In:* Eisenberg L, Kleinman A (eds): The Relevance of Social Science for Medicine. Dordecht, Holland: D. Reidel Publishing, 1981.
32. Nichter M: Idioms of distress: alternatives in the expression of psychosocial distress: a case study from South India. Cult Med Psychiatry 1981; 5:379–408.
33. Cheung F, *et al:* Somatization among Chinese depressives in General Practice. Int J Psychiatry Med 1981; 10:361–174.
34. Good BJ: The heart of what's the matter: the semantics of illness in Iran. Cult Med Psychiatry 1977; 1:25.
35. Kleinman AK: Neurasthenia and depression: a study of somatization and culture in China. Cult Med Psychiatry 1982; 6:177–190.
36. Kleinman AM, Lin TY: Normal and Abnormal Behavior in Chinese Culture. Dordrecht, Holland: D. Reidel, 1981.
37. Hull D: Migration, adaptation and illness, a review. Soc Sci Med 1979; 13A:25–36.
38. Pasquarelli G: The general medical and associated problems of the Italian migrant family. Med J Aust 1966; 1:65.
39. Coehlo GV, Ahmed PI: Uprooting and Development Dilemmas of Coping with Modernization. New York: Plenum Press, 1980.
40. Nann R: Uprooting and Surviving: Adaptation and Resettlement of Migrant Families and Children. Dordrecht, Holland: D. Reidel, 1982.
41. Lin KM, Tazuma L, Minoru M: Adaptational problems of Vietnamese refugees: 2. health and mental health status. Arch Gen Psychiatry 1979; 36:955–961.
42. Nguyen SD: Psychiatric and psychosomatic problems among Southeast Asian refugees. Psychiatr J Univ Ottawa 1982; 7:163–172.
43. Muecke MA: In search of healers: Southeast Asian refugees in the American health care system. West J Med 1983; 139:835–841.
44. International Classification of Diseases, 9th Ed. Clinical Modification. Geneva: World Health Organization, 1978.
45. Reason for Visit Classification for Ambulatory Care. *In:* Vital and Health Statistics, Series 2, No. 78. Washington, DC: US Department of Health, Education and Welfare, Public Health Service, 1979.
46. Nie NH, Hull CH, Jenkins JG, Steinbrenner K, Brent DH: Statistical Package for the Social Sciences, 2d Ed. New York: McGraw-Hill Book Company, 1975.
47. Kinzie JD, Manson SM, Do TV, Nguyen TT, *et al:* Development and validation of a Vietnamese-language depression rating scale. Am J Psychiatry 1982; 139:1276–1281.